

ABRASIVE BLAST ROOMS WITH PNEUMATIC OR MECHANICAL RECOVERY SYSTEM

International Surface Technologies (IST) is a leading manufacturer and installer of abrasive blast rooms in North America. Our turnkey sandblasting solutions provide a safe and effective sandblasting environment, allowing you to operate independently of outdoor weather conditions, whatever your requirements or the size of the parts to be sandblasted.

All our rooms are equipped with a dust collector adapted to the size of the room, floor hoppers and an abrasive recovery system allowing you to operate in a healthy environment and achieve substantial cost savings in your abrasive consumption (recovery rates of more than 95% can be achieved). Our equipment is compatible with most popular media, such as glass beads, aluminum oxide, GMA Garnet, steel shot, and steel grit.



GENERAL BROCHURE

2017-11-01



PNEUMATIC RECOVERY SYSTEM – MSW1200

HOW IT WORKS



Key points



100% adjustable cyclonic separator



Dust collector DCM230



Pneumatic recovery system with floor hoppers



Recovery system capacity



Light abrasive only

RECOVERY HOPPERS LAYOUTS AVAILABLE

International Surface <u>Technolog</u>ies

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Corner shut / Shoveling



Single in ground pneumatic through



PNEUMATIC RECOVERY SYSTEM – MRS200

HOW IT WORKS



KEY POINTS



100% adjustable cyclonic separator



High efficiency dust collector DCM200



Pneumatic recovery system with floor hoppers



Recovery system capacity



Can handle most abrasives*

* Except steel grit GH-36 or bigger and steel shot S-230.

FLOOR HOPPERS LAYOUTS AVAILABLE



Corner shut / Shoveling



Single in ground pneumatic through Double in ground pneumatic through



PNEUMATIC ABRASIVE BLAST ROOMS - MRS500

HOW IT WORKS





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100% adjustable cyclonic separator



High efficiency dust collector DCM200 with 20 hp impeller



Vacuum recovery system using handy suction head (gulper)



Recovery system capacity



Can handle most abrasives*

* Except steel grit GH-36 or bigger and steel shot S-230.



MECHANICAL ABRASIVE BLAST ROOM (SCREW)

HOW IT WORKS

The Mechanical Recovery System uses screw conveyors and a bucket elevator to convey abrasive residues into the recovery system. It is the ideal solution for maximizing the operator performance along with minimizing required care and maintenance of the system components. This system is suitable for large or small rooms, and offers flexibility in terms of recovery speed and floor layouts.



KEY POINTS





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100% adjustable abrasive air wash



Screw conveyor recovery system



Bucket elevator



Recovery system capacity



Can handle all types of abrasives

CHOICE OF FLOOR HOPPERS



Corner shut / Shoveling



With simple screw





"U"-shaped



"H"-shaped



Full double floor



MECHANICAL LOADING RECOVERY SYSTEM

HOW IT WORKS

The mechanical loading recovery system is the ideal solution for extremely large abrasive blast rooms with limited budgets or to maximize productivity in facilities where excavation is not allowed. Abrasive residues must be loaded mechanically in a discharge hopper in order to be recovered by the system. It is a high-efficiency system that is also inexpensive to implement and to maintain since it has only few mechanical components.



KEY POINTS



International Surface Technologies

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100% adjustable abrasive air wash



Recovery system capacity



Bucket elevator



Can handle all types of abrasives



Discharge hopper integrated to the recovery system

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MEDIA RECOVERY SYSTEM

All our abrasive blast rooms are delivered with a recovery system. Following the blasting process, the residual abrasives accumulated can be vacuumed to the system (MRS500), and manually or mechanically swept or shoveled into the recover pit. Collected used abrasive is conveyed to an adjustable abrasive separator to be cleaned and recycled. Reusable abrasive is then returned to the pressure vessel to be used again, while dust and fine particles are evacuated to the filtration system.

AIR WASH (MECHANICAL)





CYCLONIC SEPARATOR (PNEUMATIC)

SELECTION OF FLOOR HOPPERS CONFIGURATIONS

The recovery system is determined by the type of abrasive used (screw conveyor versus vacuum recovery) and your needs in terms of production and budget. Complete floor hoppers are more expensive, but provide an automatic and continuous recycling of the abrasive without the need to sweep manually. Partial floor hoppers and corners require the operator to sweep the abrasive into the floor hopper. If lift trucks are required in the room, a grating that can withstand very heavy loads must be provided accordingly.

INSTALLATION SORT	PROS	CONS			
HOPPERS INTEGRATED TO THE FLOOR	 Easy and fast room cleaning by simply sweeping the abrasive into the recovery pit 	 Excavation is required 			
HOPPERS ABOVE GROUND	 No excavation required Very cheap to implement 	 Abrasives need to be manually shoveled into the recovery pit Loss of productivity 			
FULL FLOOR	 Automatic and continuous recycling of abrasive, without the need to sweep or shovel 	 More expensive to implement and maintain 			
PARTIAL FLOOR	 Less expensive to implement and maintain 	 Floor hoppers need to be loaded manually by the operator Loss of productivity 			
MECHANICAL LOADING	 Less expensive to implement and maintain No excavation required 	 Hopper needs to be loaded mechanically with a loader Loader is required 			

SECURITY EQUIPMENT

IST provides a 4-stage filtration system to provide breathable air to the operator's hood, eliminating air contaminants such as oil vapors, hydrogen gases, rust and other potentially hazardous contaminants to provide pure compressed air of respirable quality.

This system is equipped with an air supply detector and a carbon monoxide detector which continuously monitors and samples the air supplied in accordance with OSHA standards.

4-STAGE AIR BREATHING SYSTEM

BREATHABLE AIR HOOD

SANDBLASTING SUITS

BLAST LIGHTS









3-AXIS BLASTING ELEVATION SYSTEM

BL lifts can replace ladders for working in elevation and provide increased safety and productivity.



KEY POINTS:

- Customizable raised-platform heights up to 20 feet
- Operator platform capacity 500 lb
- Pneumatic/hydraulic power unit
- o Operator controls on front rail of platform
- Requires a clean, dry air supply of 80 scfm @ 100 psi with dew point @ 40° F
- Travel Speeds: X-Axis up to 40 fpm, Y-Axis and Z-Axis up to 15 fpm
- o 1 and 2 axis models available
- Extended reach model available

ROLL-UP DOOR SYSTEM

Durable roll-up rubber doors designed to withstand harsh environment and requiring minimal maintenance.



CONTROL PANEL

Main control panel with HMI and emergency stop button



HMI TOUCH PANEL

(Human Machine Interface)



CHOICE OF PRESSURE VESSELS

We offer different options and configurations of pressure vessels to accommodate your needs and maximize your productivity.



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Specifications	PPB 646	PPB 1046		
Loading capacity (A.S.M.E.)	6.5 cu.ft.	10 cu.ft.		
Tank diameter	24″	24″		
Media loading (abrasive)	600 lb.	1,000 lb.		
Lenght x height x witdh	32" x 50" x 35"	32" x 66" x 35"		
Weight	350 lb.	575 lb.		
Number or operators	1	1 or 2		

CONFIGURATION OPTIONS								
Pressure hold system	Pressure release system							
✓ No depressurization when blasting operations stop	 Pressure vessel automatically depressurizes when blasting 							
✓ Reduces air consumption	operation stop							
✓ Convenient for frequent start/stop operations	 Automatic filling of the pressure vessel, without any intervention 							
 Even abrasive flow when starting operations 	 ✓ Less wear-and-tear for the abrasive metering valve 							
operations	 ✓ Simplified and cheaper maintenance 							
Double Control system								
✓ Combined system offers the advantages of both configurations without the disadvantages.								

UPGRADE KIT







Coupling

Automatic Air Valve

DEPRESS SWITCH

Allows the operator to fill the pressure vessel without leaving the abrasive blast rooms





LED LIGHTING

LED

High efficiency

lighting system

UPGRADE TO MAXBLAST FOR MORE POWER AND BLASTING SURFACE

Maxblast upgrade kit includes an automatic air valve and fitting that allows you to install a 1½" blast hose which increases air pressure at the nozzle, reduces pressure losses and increases operator productivity.

BENEFITS OF MAXBLAST

- Reduction of pressure losses from 24% to 27%
- Increased in productivity (blasting time) from 36% to 40%

RUBBERIZED WALL PANELS

Tightly sealed rubberized wall panels protecting the inside of the abrasive blast rooms





AIR & ABRASIVE CONSUMPTION

Pressure

Opening	psi ¹	30	40	50	60	70	80	90	100°
1/8″	cfm ²	8	10	11	13	15	17	19	20
	lb/h³	55	69	84	97	110	127	140	154
3/16″	cfm ²	18	22	26	30	33	38	41	45
	lb/h³	130	160	170	192	220	243	268	297
1/4"	cfm ²	34	41	47	54	61	68	74	81
	lb/h³	219	276	302	351	398	460	504	556
F /1 C//	cfm ²	53	65	77	89	101	113	126	137
5/10	lb/h³	410	495	526	601	680	756	832	910
3/8″	cfm ²	76	91	108	126	143	161	173	196
	lb/h³	570	710	750	860	970	1080	1184	1296
7/16″	cfm ²	100	124	147	170	194	217	240	254
	lb/h³	770	840	1008	1160	1320	1476	1630	1782
1/2″	cfm ²	137	165	195	224	252	280	309	338
	lb/h³	1015	1230	1305	1500	1700	1890	2088	2277
5/8″	cfm ²	212	260	308	356	404	452	504	548
	lb/h ³	1325	1600	1875	2140	2422	2690	2973	3250

RECOVERABLE BLASTING MEDIA



Media Guide	Glass Beads	Ceramic Grit	Stainless Cut Wire	Steel Shot	Steel Gri	Alumi- nium Oxide	Silicon Carbide	Garnet	Crushed Glass	Plastic Media	Walnut Shells
Finishing	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
Cleaning/Removal	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Peening	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO
Surface Profiling (Etch)	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES
Working Speed	MED.	MED.	MED.	MED.	MEDHIGH	HIGH	VERY HIGH	HIGH	HIGH	MEDHIGH	LOW-HIGH
Recyclability	HIGH-LOW	HIGH	HIGH	VERY HIGH	VERY HIGH	MEDHIGH	MEDLOW	MED.	MEDLOW	MED.	LOW
Probability of Metal Removal	VERY LOW	VERY LOW	VERY LOW	VERY LOW	MED.	MEDHIGH	MEDHIGH	MED.	LOW-MED.	VERY LOW	VERY LOW
Hardness, MOH Scale (Rockwell RC)	5.5	7 (57-63)	6-7.5 (35-55)	6-7.5 (35-55)	8-9 (40-66)	8-9	9	8	5.5	3-4	1-4.5
Bulk Density (lb/cu.ft.)	100	150	280	280	230	125	95	130	100	45-60	40-80
Mesh Size	30- 440	8-46	20-62	8-200	10-325	12-325	36-220	16-325	30- 400	12-80	MANY
Typical Blast Pressure	20-55	20-90	20-90	20-90	20-90	20-90	20-90	30-80	20-50	20-60	10-40
Shapes : 💽 or 🛕	0	•	0	0	\triangle	Δ	\triangle	Δ	Δ	lacksquare or $lacksquare$	Δ

* Above information is intended as a general reference guide



BLAST ROOM DUST COLLECTORS

IST offers a wide selection of fully equipped blast room dust collectors with up to 50,000 cfm in capacity.

Our vertical design and pulsation system provide a more efficient means to remove dust from cartridges, eliminating uneven dust accumulation associated with horizontally mounted cartridges.



DCM 3,000 to 50,000



Simple and safe cartridge replacement system requiring no tools.



Automatic Pulse Cartridge Cleaner. A light illuminates to indicate when the cartridges must be replaced.



Optional screw conveyor to collect dust inside the building



DIFFERENT TYPES OF DUST EXTRACTION DUCTINGS





The advantages of an ISTblast abrasive blast room

- o Significant savings as abrasives can be collected, sorted and recycled
- o Increased productivity since you can sand indoors 24/7, regardless of outdoor weather

Industrial applications

- General manufacturing
- Industrial equipment

- o Aerospace & Aviation
- o Rail & Transport
- o Shipyards

- o Automotive
- o Petrol

• Foundry & Forging

INNOVATION AND LEADING TECHNOLOGY

Founded in 1978, International Surface Technologies (IST) is a North American leader in sanding chambers, blasting cabinets and portable sandblasting equipment. The company's success lies in its unwavering commitment to technical excellence, world-class manufacturing and unmatched customer service.

Working closely with specialized distributors and abrasive users, IST offers systems, products and technologies that set the quality standard for a wide range of surface treatment applications. IST supplies equipment for a wide range of surface preparation industries to accommodate paint applications or to reinforce surface profiles to resist wear.

The continued investment in research and development of IST in the field of industrial sandblasting will continue to provide innovative solutions to a diversified global market. Call today for product information or to request a demonstration.





Canablast is a registered trademark of International Surface Technologies 4160 Industriel Blvd. Laval, Quebec H7L 6H1 Canada

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